

# Comparisons of Job Characteristics

**Focus Occupation:** **Machinists (51-4041)**

**Associated Occupation:** **Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 93

**Focus Occupation: Machinists (51-4041)**

**Associated Occupation: Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)**

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mathematics	9.2	17.4	14.2	< Expanded education and/or training may be required
Mechanical	6.8	15.5	18.0	> Current knowledge level is likely sufficient
Design	5.2	13.8	11.2	< Expanded education and/or training may be required
Engineering and Technology	5.7	13.5	10.2	<< Extensive education and/or training may be required
Production and Processing	6.0	10.5	12.7	> Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 23

**Focus Occupation: Machinists (51-4041)**

**Associated Occupation: Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)**

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Programming	2.2	14.0	3.7	<< Extensive development of skills in this area may be required
Operation Monitoring	6.6	11.1	12.0	0 Current skill level may be sufficient
Mathematics	6.2	10.3	8.5	< A higher skill level may be required
Equipment Selection	3.3	7.0	8.6	> Skill level is likely sufficient
Technology Design	2.6	5.5	6.0	0 Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 81			
Focus Occupation: Machinists (51-4041) Associated Occupation: Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Perceptual Speed	7.4	11.4	9.9	<	Some improvement in abilities may be required
Visualization	7.5	11.2	10.1	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	10.8	9.1	<	Some improvement in abilities may be required
Selective Attention	8.7	10.5	9.7	0	Current ability level may be sufficient
Reaction Time	4.8	9.7	10.1	0	Current ability level may be sufficient
Auditory Attention	5.9	9.1	8.7	0	Current ability level may be sufficient
Rate Control	3.8	7.2	8.6	>	Current ability level is likely sufficient
Wrist-Finger Speed	3.2	5.9	7.3	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 92
Focus Occupation: Machinists (51-4041) Associated Occupation: Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)		
Work Activities	Exclusivity of Activity	
Determine tasks needed to complete machined products	87	
Lay out machining, welding or precision assembly projects	63	
Program computer numerical controlled machines	89	
Read blueprints	10	
Read technical drawings	7	
Solve machine tool problems	89	
Understand technical operating, service or repair manuals	6	
Use drafting or mechanical drawing techniques	50	

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: n/a

**Focus Occupation: Machinists (51-4041)**

**Associated Occupation: Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)**

Tools and Technologies	Exclusivity
Tools and technology data is unavailable for one or both occupations.	

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.